

# Selecting and training opinion leaders and best practice collaborators

## Experience from the Canadian Chiropractic Guideline Initiative

Bussières, André E.; Maiers, Michele; Grondin, Diane; Brockhusen, Simon

*Published in:*
Journal of the Canadian Chiropractic Association

*Publication date:*
2017

*Document version*
Peer reviewed version

*Citation for pulished version (APA):*
Bussières, A. E., Maiers, M., Grondin, D., & Brockhusen, S. (2017). Selecting and training opinion leaders and best practice collaborators: Experience from the Canadian Chiropractic Guideline Initiative. Journal of the Canadian Chiropractic Association, 61(1), 53-64.

ISSN 0008-3194 (p)/ISSN 1715-6181 (e)/2017/53–64/$2.00/©JCCA 2017

# Selecting and training opinion leaders and best practice collaborators: experience from the Canadian Chiropractic Guideline Initiative

André E. Bussières, DC, MSc, PhD[1,2]
Michele Maiers, DC, MPH, PhD[3]
Diane Grondin, DC, MHK PhD (Student)[4,5]
Simon Brockhusen, MSc (Clin.Biomech), MD (Student)[6,7]

Objectives: *To describe the process for selecting and training chiropractic opinion leaders (OLs) and best practice collaborators (BPCs) to increase the uptake of best practice.*

Methods: *In Phase 1, OLs were identified using a cross-sectional survey among Canadian chiropractic stakeholders. A 10-member committee ranked nominees. Top-ranked nominees were invited to a training workshop. In Phase 2, a national e-survey was administered to 7200 Canadian chiropractors to identify*

Objectifs : *Décrire le processus permettant de choisir et former les leaders d'opinion (LO) et collaborateurs des pratiques d'exemplaire (CPE) en chiropratique dans le but de favoriser l'adoption des pratiques d'excellence.*

Méthodologie : *Lors de la première phase, on a désigné les LO au moyen d'une enquête transversale parmi les intervenants canadiens de la chiropratique. Un comité composé de dix membres a classé les candidats. Les candidats les mieux classés ont été invités à un atelier de formation. Lors de la deuxième phase, 7 200 chiropraticiens canadiens se sont soumis à une enquête nationale en ligne visant à désigner d'autres LO et CPE. Les noms recommandés ont été présélectionnés par les LO et le choix final s'est fait*

[1] Assistant Professor, School of Physical and Occupational Therapy, McGill University
[2] Professor, Département Chiropratique, Université du Québec à Trois-Rivières
[3] Executive Director of Research and Innovation, Northwestern Health Sciences University
[4] Assistant Professor, Canadian Memorial Chiropractic College
[5] PhD student, Institute of Health Policy, Management and Evaluation, University of Toronto
[6] Research assistant, Nordic Institute of Chiropractic and Clinical Biomechanics
[7] MD (Student), University of Southern Denmark

Correspondence to:
Andre Bussières
School of Physical and Occupational Therapy, Faculty of Medicine, McGill University,
3630 Promenade Sir-William-Osler, Hosmer House, Room 205, Montreal, Quebec, Canada H3G 1Y5
E-mail: andre.bussieres@mcgill.ca
Disclosures: Dr. Bussières is the CGI Project Lead of the Canadian Chiropractic Guideline Initiative and holds the Canadian Chiropractic Research Foundation Professorship in Rehabilitation Epidemiology.

*additional OLs and BPCs. Recommended names were screened by OLs and final selection made by consensus. Webinars were utilized to train BPCs to engage peers in best practices, and facilitate guideline dissemination.*

Results: *In Phase 1, 21 OLs were selected from 80 nominees. Sixteen attended a training workshop. In Phase 2, 486 chiropractors recommended 1126 potential BPCs, of which 133 were invited to participate and 112 accepted.*

Conclusions: *OLs and BPCs were identified across Canada to enhance the uptake of research among chiropractors.*

(JCCA. 2017;61(1):53-64)

KEY WORDS: chiropractic; change agents; opinion leaders; survey; selection; training

*d'un commun accord. On s'est servi de webinaires pour former les LO à encourager leurs pairs à adopter des pratiques d'excellence et faciliter la diffusion des lignes directrices.*

Résultats : *Lors de la première phase, on a choisi 21 LO parmi 80 candidats. Seize d'entre eux ont assisté à un atelier de formation. Lors de la deuxième phase, 486 chiropraticiens ont recommandé 1 126 LO potentiels, parmi lesquels 133 ont été invités à participer et 112 ont accepté.*

Conclusions : *On a désigné des LO et CPE à l'échelle du pays pour favoriser l'adoption de la recherche parmi les chiropraticiens.*

(JCCA. 2017;61(1):53-64)

MOTS CLÉS : chiropratique, agents de changement, leaders d'opinion, enquête, choix, formation

## Background

Clinical practice guidelines (CPGs) are widely recognized as a foundational tool to inform clinical decision making.[1] When followed, CPGs have the potential to improve health outcomes, as well as the efficiency of the health care system.[2,3] Low adherence to CPGs for the management of musculoskeletal disorders and spine care in particular contributes to a wide variation in services seen across several health disciplines including chiropractic.[4-7] Implementing guidelines typically requires change at multiple levels, including attitudinal and behavioural change by clinicians and promoting use of CPGs by stakeholders (e.g., governing bodies and professional associations).[8]

The Canadian Chiropractic Guideline Initiative (CCGI) was launched over a decade ago by the national chiropractic professional organizations in Canada in order to develop CPGs to improve quality care[9] and decrease the burden of musculoskeletal disorders[10]. The mission of the CCGI is to develop, disseminate and help implement CPGs among Canadian chiropractors.[11]

Prior work explored the determinants of guideline adherence among health care professionals using the Theoretical Domain Framework (TDF)[12], a framework previously applied in a wide range of disciplines, settings and contexts[13]. Interviews of chiropractors and professional leaders in Canada[14,15] suggested that guideline adherence is potentially influenced by the theoretical domains of social influence and social/professional role and identity. In other words, the set of behaviours and personal qualities displayed in social or work settings (social influence) and the processes existing between people that have the potential to influence thoughts, feelings or behaviours (social/professional role and identity) can lead to behaviour change.[16] Mapping of Behaviour Change Techniques (BCTs)[17] on to these theoretical domains suggested that social processes of encouragement, pressure, support, and modeling/demonstration of behaviour are important techniques for changing professional behaviour[15]. Change agents (people who, by the nature of their position or abilities are particularly capable of promoting change) are well suited to accomplish these BCTs. This is partly because peer pressure to conform to social norms affects behavioural intention, an important predictor of individuals' behaviour.[18]

Implementation research supports the use of change agents, including practitioners, to deliver evidence-based recommendations and programs to improve the quality of care.[19,20] Opinion leaders (OLs) are individuals who have formal or informal influence on the attitudes, beliefs and

behaviours of their colleagues and stakeholder organizations.[21,22] Generally viewed by their peer group as likeable, trustworthy and influential, OLs play an important role in promoting health care initiatives, in leveraging established relationships to create access points within a target community, in communicating key messages[23], and in demonstrating and reinforcing desired behaviour[24]. As respected members of a community, their spheres of influence provide an opportunity for long-term subsistence of an initiative, long after active intervention has concluded.[25] Reviews on the effectiveness of OL interventions suggest that a 12% absolute increase in compliance with an intervention may be expected when using OLs to promote evidence-based practice.[26]

By extension, best practice collaborators (BPCs) can also be seen as important change agents. Here BPCs are defined as individuals who are also seen as caring, knowledgeable and good educators and who assist the OLs in their role. Recognizing the use of change agents as an important strategy to influence professional behaviour change, the current paper outlines the strategy used by the CCGI to identify and train OLs and BPCs to promote the use of best practice within the Canadian chiropractic profession broadly (i.e., practicing chiropractors and leaders of national and provincial associations, regulatory boards, liability insurance carriers, and other stakeholders).

## Methods

### Phase 1: Opinion Leaders

The aim of Phase 1 was to appoint OLs to assist the CCGI with the dissemination and implementation of CPGs among Canadian chiropractors and support professional leaders engaged in the process of guideline implementation.

#### *Study design*

A cross-sectional research design was employed to identify OLs in the chiropractic profession in all 10 provinces across Canada.

#### *Participants and recruitment*

CCGI stakeholders, professional leaders of national and provincial chiropractic associations and regulatory boards in Canada (n=50) who attended an annual meeting in February 2014 were asked to complete a survey questionnaire.

#### *Survey questionnaire*

The questionnaire asked participants to provide up to three names of Canadian chiropractors they felt to be suitable to serve as OLs as well as their reasons to nominate. Nominations were based on the chiropractors' skills and attributes, specifically, whether they were educationally influential, knowledgeable and humanistic, along with their sphere of influence (i.e., clinicians and/or professional leaders/decision makers)(Appendix 1).[27]

#### *Data collection*

For each nominee, general demographic and practice data were collected from internet searches on publicly available search engines such as Google and social media, the practitioner's clinic website and provincial/regulatory websites. Data gathered from these searches were complemented by information provided by the members of the selection committee based on knowledge of the candidate through prior work (described below). A candidate profile was established in an Excel spreadsheet for each nominee, including their gender, the number of years in practice, their participation (or not) in continuing education activities, presentations given to their peers, academic and publication record, and the presence/absence of prior liability issues or regulatory complaints.

#### *Data analysis*

A 10-member selection committee of CCGI stakeholders was established to review the candidate profiles. To obtain a wide range of views, perspectives and professional experience, the committee was composed of a purposive sample from diverse geographical settings including members of a chiropractic specialty college (n=2), a field practitioner (n=1), academics (n=2), leaders from provincial associations and regulatory boards (n=3), and researchers (n=2).

To guide the selection process, committee members considered pre-established criteria adapted from Rycroft-Malone[27] to help inform their selection, including geographical location, past and current level of engagement with the profession, availability, attitudes and beliefs toward evidence-based practice and CPGs, and prior teaching experience. Other desirable attributes included

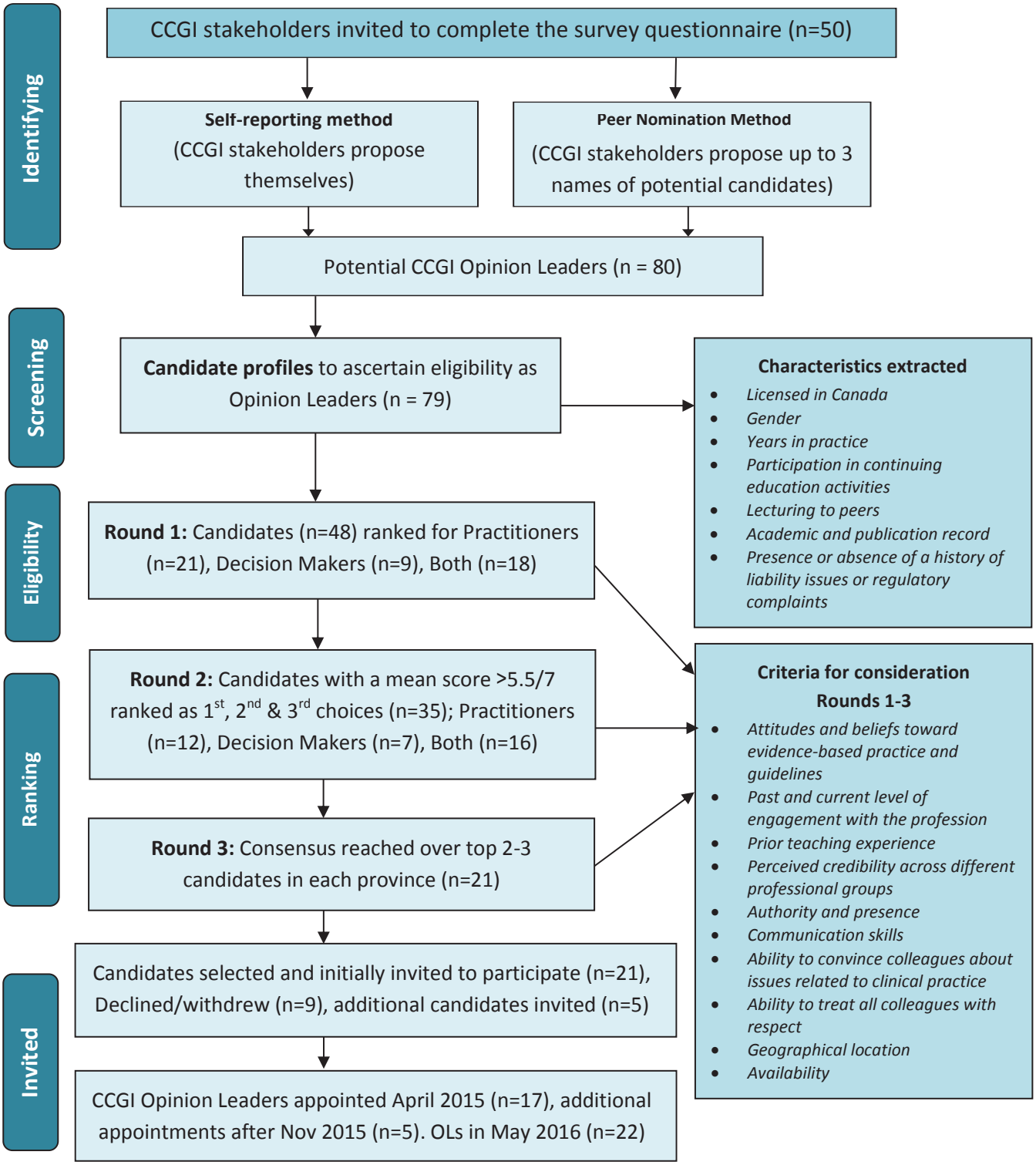


Figure 1.
*Flowchart illustrating the systematic process used to identify Canadian chiropractic OLs.*

being perceived as being credible and/or as an authority figure by their peers, having good communication skills, treating all colleagues with respect, and being capable of influencing colleagues about issues related to clinical practice (Figure 1). Potential OLs needed to have experience dealing with a range of practicing chiropractors (e.g. working in solo vs. multidisciplinary practices, those with an evidence-based vs. alternative philosophy, and non-specialist vs. specialist chiropractors) and different professional groups.

The committee formally met online on three occasions between June and August 2014 to undertake a two-round consensus process to identify nominees that would be invited to become OLs. In round 1, members of the selection committee considered the above criteria to rank candidates using a Likert scale from 1-7 ("1" = strongly disagree and "7" = strongly agree) on their likelihood of being influential toward practitioners and/or stakeholders. Mean scores were calculated and candidates with scores over 5.5 out of 7 were considered in the next round. In round 2, names retained were grouped by province and ranked by committee members as first, second and third choices. In round 3, committee members reached consensus over the top 2-3 candidates. These were then invited by e-mail to serve as OLs. A follow-up call was made by the project lead (AB) to provide detail about the OL program and answer any questions they had about the program. Other nominated individuals were kept in the retained list.

## Results

CCGI stakeholder survey response rate was 38% (19/50), providing names of 80 potential OLs (Figure 1). One candidate was from the US and was excluded. In round 1, median scores across identified potential OLs were 5.19 (0.73) for 'Practitioners' and 5.44 (0.75) for 'Leaders/decision makers'. To retain 40% of potential OLs, candidates with scores of 5.5 or above (n=48) were considered in the next round, including OLs for 'Practitioners' (n=21), 'Leaders/decision makers' (n=9) or nominated in both categories (n=18). In round 2, 35 candidates ranked as either first, second and third choices were retained for the following round, including potential OLs for 'Practitioners' (n=12), 'Leaders/decision makers' (n=7) and 16 for both 'Practitioners' and 'Leaders/decision makers' roles. In round 3, the selection committee made final recommendations for 21 OLs, including two in each province with the exception of a larger province (three in Ontario and Quebec) and a smaller province (one in Prince Edward Island). Of the 21 clinicians and professional leaders/decision makers in the profession who received an invitation letter to become a CCGI OL, 5 declined due to time constraints or lack of interest. Five alternate candidates were invited from the retained list and, of these, 4 withdrew for similar reasons, leaving 17 OLs. Because some new OLs admitted to having limited availability for this project, additional appointments were made from the retained list in November 2015 for Nova Scotia (n=1), and in March 2016 for Saskatchewan (n=1) and Alberta (n=3), bringing the total number of OLs in place to 22 by May 2016. The names of OLs in each province are available at: http://www.chiropractic.ca/guidelines-best-practice/about-us/meet-the-team/opinion-leaders/.

### *Training workshop for Opinion Leaders*

Sixteen OLs were available to attend a one-day workshop in Toronto, Ontario in February 2015. While participation in the OL program is voluntary, traveling expenses were reimbursed. The session was co-developed and delivered by a Certified Executive Leadership Coach with the assistance of three academic researchers with clinical training in chiropractic (AB, MM, DG) and one chiropractor and medical student (SB) and a research manager. Content of the workshop was informed by the literature and addressed five essential activities of the implementation process: engaging, planning, reflecting, executing and evaluating.[28] The workshop objectives and agenda can be found in Appendix 2.

Two weeks prior to the workshop participants received an online invitation to complete the Strength Deployment Inventory (SDI®), a tool aimed at assessing self-awareness, conflict resolution and team functioning strategies.[29] During the workshop, the Certified Executive Leadership Coach presented the results of the self-assessments, aiming to raise the self-awareness of participants and forming the basis for enhancing their ability to communicate more effectively, handle conflict more productively, and improve relationships. This was further explored in the context of the roles and personal qualities of effective OLs.

Participants were asked to identify stakeholders who they could directly or indirectly influence. Participants

were then divided into three groups to identify potential audiences they had access to regionally (e.g. patients, decision-makers, clinicians, multidisciplinary teams) and determine those upon which they had the most/least influence.

After a brief overview of the content of the CCGI website (www.chiroguidelines.org), participants were given time to explore its resources and tools. Comments received in the end-of workshop feedback questionnaire suggested that this activity successfully addressed an important need of OLs to become familiar with CCGI tools and resources on CPGs and EIP.

To provide insight about the OLs' expectations about their participation in the workshop, attendees were asked to do a '3-2-1 exercise', listing three important things they had learned during the workshop, two questions they felt remained unanswered, and one suggestion for next steps. Results from the exercise indicated a need for additional resources to help with their tasks, such as summaries of key guideline recommendations, PowerPoint presentations for board meetings or continuing educational events, a Question and Answer sheet to address potential questions by clinicians, and patient handouts and posters. Participants were invited to draft an 'Opinion Leader Action Plan' to identify upcoming opportunities of influence and to outline the perceived needs for resources from the CCGI.

A detailed summary of the workshop was forwarded to the participants with an invitation to attend a follow-up teleconference call. During periodic follow-up teleconference calls, OLs provided updates on their progress and their plans for dissemination in their respective provinces.

## Phase 2: Best Practice Collaborators

The aim of phase 2 was to confirm the additional OL selection and appoint additional OLs and BPCs to complement and assist trained OLs.

### *Study design*

A descriptive cross-sectional survey was conducted online 20 months after phase 1 (REB Approval: 1507X01, Canadian Memorial Chiropractic College).

### *Participants and recruitment*

An invitation to complete a 10-minute national online survey was sent by the Canadian Chiropractic Association (CCA) by e-mail to all members with a valid e-mail address (n=7200). It included a description of the study and a link to access the survey. Those who returned their completed survey were eligible to win one of two $100 Indigo gift cards.

### *Survey questionnaire*

The survey was adapted from Hiss' sociometric questionnaire administered to care providers[30,31] and was divided into four sections (Appendix 3). Section I contained eight questions to find out how respondents give/receive information from colleagues (e.g. In general, do you talk to other chiropractors about clinical or professional issues in chiropractic practice?). They had to indicate, on a 5-point Likert scale, the answer that best represented their behaviour ("1" = Never and "5" = Very often). In section II, respondents were asked to provide the names of three chiropractors in their province who best fit the following roles: educator, knowledgeable practitioner, and caring professional. In section III, the survey asked respondents to suggest up to 18 names of colleagues they would turn toward for: 1) their ability to give good advice, 2) discussing challenging cases, 3) information on referrals resources, and 4) socializing. Section IV asked 10 demographic questions about participants and their practice.

### *Data collection*

Data collection took place over a three-week period in the fall of 2015. The survey was available in English and in French and delivered on FluidSurveys (www.fluidsurveys.com). Data was submitted by respondents electronically immediately after completion and a list of all the proposed names of CCGI collaborators were entered into an Excel spreadsheet by province.

### *Data analysis*

To further refine the list of names proposed by clinicians, OLs selected in phase 1 were asked to indicate if they considered the individuals nominated as potential BPCs had the skills and attitudes required to help accomplish their tasks to promote EIP, guidelines and best practice. They were asked to classify the nominees in one of three categories: 1) In my opinion, this candidate carries influence over their peers in the area of evidence-informed practice; 2) In my opinion, this candidate does not carry influence over their peers in the area of evidence-informed practice;

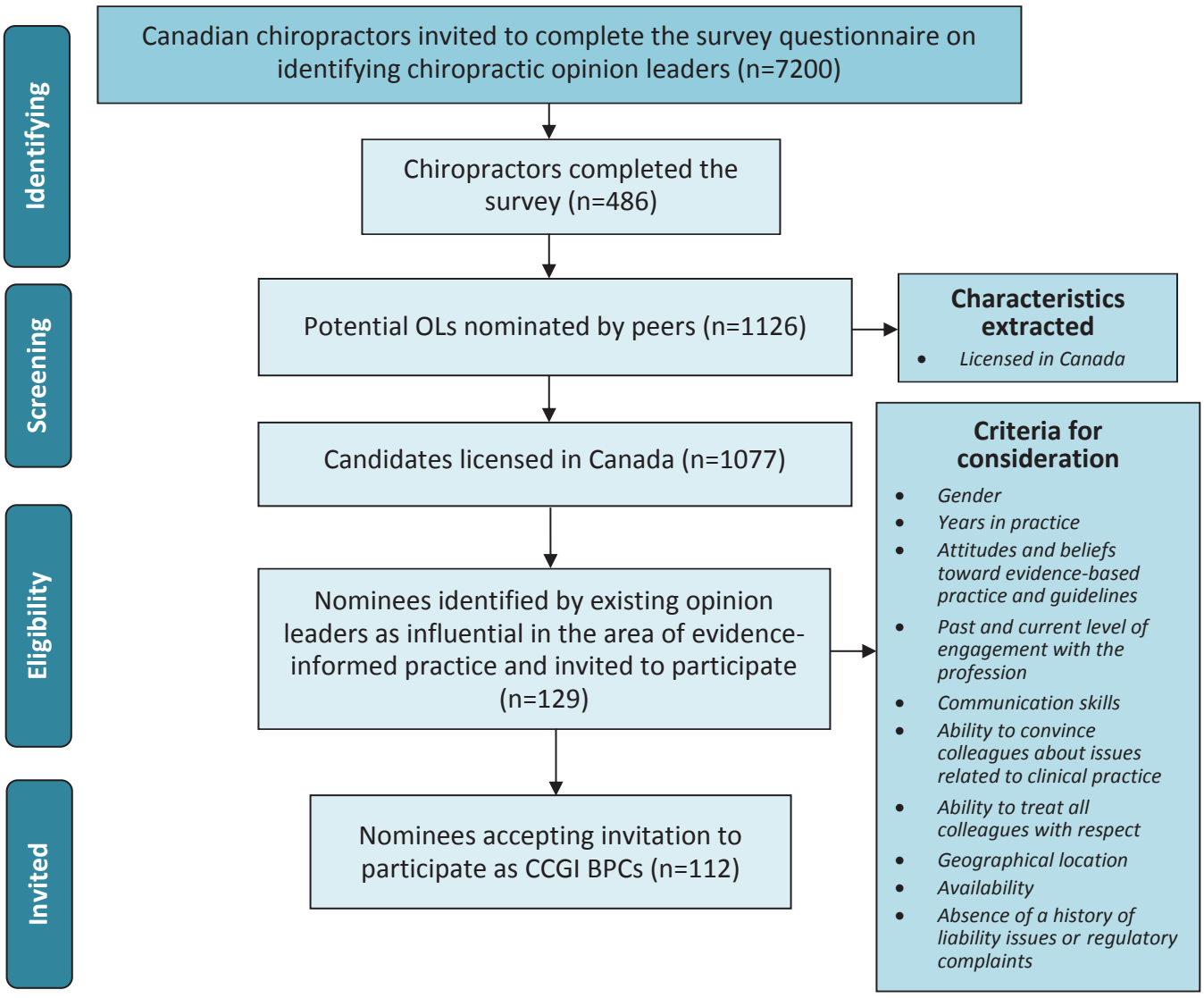


Figure 2:
*Flowchart illustrating the systematic process used to identify CCGI BPCs*

or 3) I do not know this person. Individual opinion leaders in each province then independently rated the nominees who they knew in their region, and who they classified in the first category mentioned above. Best-rated candidates were placed on a short list based on personal knowledge of OLs and Phase 1 criteria. Final selection of short-listed nominees was made by consensus by the existing team of OLs in each province during a teleconference. The number of nominees selected varied according to context (e.g. size of the province) and perceived local needs (e.g. distance between communities).

## Results

A total of 486 Canadian chiropractors submitted their completed survey, providing a response rate of approximately 6% (Figure 2). Results indicate that a majority of respondents were male (53.7%), between the age of 25 and 45 years (66.0%), and in full time practice (86.4%)

Table 1:
*Profile of survey participants (November 2015)*

| **Characteristics** | Proportion n (percentage) |
|---|---|
| **Gender (n=339)** | |
| Male: | 182 (53.7%) |
| Female: | 157 (46.3%) |
| **Work Status (n=339)** | |
| Part-time (< 12 hrs/wk): | 46 (13.6%) |
| Full-time: | 292 (86.4%) |
| **Age (n=339)** | |
| 25-45: | 224 (66.0%) |
| 46-65: | 115 (18.9%) |
| **Practice location/Province (n=347)** | |
| Ontario: | 154 (44.3%) |
| Quebec: | 59 (16.7%) |
| British Columbia: | 46 (13.3%) |
| Alberta: | 46 (13.3%) |
| Manitoba: | 17 (5.0%) |
| Saskatchewan: | 9 (2.6%) |
| Nova-Scotia: | 9 (2.6%) |
| New-Brunswick: | 5 (1.4%) |
| Newfoundland/Labrador: | 2 (0.5%) |

(Table 1). The largest percentage of participants was from Ontario (44.3%). Survey respondents volunteered names of 1077 colleagues from Canada, 47 individuals from the US and 2 from the UK. Among these, 338 were nominated between 2-3 times, 132 between 4-7 times and 36 people over 8 times. All but one of the OLs selected in phase 1 were nominated within the top five choices in their province. OLs in place helped reduce the list to 129 names they believed had favourable attitudes and skills to assist them with their tasks as CCGI OLs. The potential BPCs received a letter informing them of the results of the survey and were asked if they were interested in collaborating with OLs in their respective province. A total of 112 chiropractors accepted the invitation to become BPCs. The list of names is available at: https://www.chiropractic.ca/guidelines-best-practice/about-us/meet-the-team/best-practice-collaborators/.

### *Training of Best Practice Collaborators*

BPC nominees in each province were invited to attend a 45-minute webinar describing the mission and related strategies of the CCGI, the current role of OLs, and their potential contribution as BPCs (Table 2). BPCs were asked to help OLs promote the use of best practices using their own network of colleagues. OLs were encouraged to engage with new BPCs to discuss respective views about the CCGI mission and strategies, possible roles and contribution of collaborators and their availability for future guideline dissemination projects, as well as to ensure that they have access to and become familiar with the CCGI bilingual website, available tools (e.g., online learning modules on EIP and guidelines) and resources. Participation in these various activities aims to provide BPCs with a baseline understanding of the work of the CCGI and to help them perform their new role. A Competency Development Program was developed for OLs and BPCs along with associated performance indicators, including topics such as demonstrating adequate knowledge, effective communication and ability to develop networks with colleagues to help disseminate best practice (Appendix 4).

## Discussion

Chiropractors across Canada occupying key positions within provincial, national and international organizations and academic institutions were identified and trained to serve as OLs or BPCs. In addition to facilitating the uptake and application of guidelines to improve chiropractic patient care within their networks, these individuals will help raise the credibility and visibility of the CCGI.

Engaging team members tasked with implementing best practice and guidelines is often-overlooked.[32] It is vital that members be carefully and thoughtfully selected or allowed to rise naturally, especially those considered to be 'implementation leaders' and 'champions'.[22] The decision about who to invite as OLs and BPCs for this project was informed by the scientific literature[27,30,31] and group consensus. There are different conceptualizations of OLs[21,33], one of which proposes that there are two types of OLs: experts and peers. Expert OLs exert influence through their authority and status, while peer OLs exert influence through their representativeness and credibility.[34] CCGI OLs and BPCs include a mixture of these types, and results from the stakeholder survey undertaken in phase II affirmed the committee's selection.

Table 2:
*Roles and activities of CCGI Best Practice Collaborators*

Canadian Chiropractic Guideline Initiative
ADVANCING EXCELLENCE IN CHIROPRACTIC CARE

# Roles and activities of CCGI Best Practice Collaborators

## *Education*

- **Discuss key guideline recommendations** with clinicians;
- **Support the implementation of best practice** among the profession in their own area, in collaboration with existing local CCGI opinion leaders;
- **Participate in or lead activities, groups or events.** (e.g. make presentations or assist with workshops on EIP at continuing education events or conferences in partnership with the local CCGI OL/BPC team);
- **Have a presence on social media** (e.g., LinkedIn, CCGI YouTube) to encourage awareness of available CCGI resources;
- **If teaching, introduce learners to EIP** by including it in coursework and highlighting the importance of EIP for clinicians in practice.

## *Advancing the profession*

- **Raise awareness of the most recent research and encourage clinicians to use it in practice.**

## *Relationship building*

- **Build relationships** through regular communication with various stakeholders (e.g.: clinicians, fellow BPCs/OLs);
- **Create networks** to encourage clinicians and stakeholders to follow CCGI;
- **Share your own experiences with other BPCs and OLs** regarding knowledge translation (KT) strategies used within respective context and setting;
- **Encourage clinicians** to learn about and discuss EIP principles and guideline recommendations;
- **Encourage clinicians to use CCGI tools and resources**;
- **Inform on how/where to access reliable information** on CPGs or EIP principles;
- **Address concerns clinicians express** about EIP principles and guideline recommendations.

Table 3.
*CCGI Opinion Leader and Best Practice Collaborator activities since 2015*

| Province | Event | Date |
|---|---|---|
| Ontario | OLs presented EIP to chiropractic students in different contexts at the Canadian Chiropractic Memorial College and showed where and how to access information, tools, resources on the CCGI website. OLs also presented the CCGI mission, strategies, and website to CMCC board members to raise awareness of the benefits for future chiropractors. | Sept 2015-ongoing |
| Québec | OLs presented the concept of EIP to clinicians at provincial meeting. | Sept 2015 |
| Prince Edward Island | Workshop was held for clinicians to show them how to navigate the CCGI website and access numerous tools and resources, such as CPGs. | Sept 2015 |
| Newfoundland & Labrador | OL meeting with provincial and national politicians to explain how chiropractic could be used more efficiently in a primary care setting and how guidelines can be used to promote best care. OLs explained to insurance company representatives the guidelines development process and how these may be used to increase guideline adherence. | Sept 2015 |
| New Brunswick | Letter sent to family doctors to raise awareness of the chiropractic guidelines and encourage them to either refer to chiropractors when deemed appropriate and to use the guidelines when managing patients with musculoskeletal disorders. | Jul 2016 |
| British Columbia | OLs reviewed the essential components of an evidence- based spine care pathway, which practice-based research network (PBRN) practitioners are expected to follow when receiving referrals from the local hospital- based spine program. | Nov 2016 |
| Manitoba | Presentation to Alberta College and Association of Chiropractors, Red Deer AB | Sept 2016 |
| Nova Scotia | OL and BPC presentation to Annual Maritime Chiropractic Convention and Tradeshow, Halifax NS | Sept 2016 |
| | OL presentation to Collaborative Care Conference, Halifax NS | Nov 2016 |

### *Early accomplishments of the OL/BPC program*

Although this program is still in its infancy, several activities have already taken place across Canada, including presentations of the EIP approach and CCGI resources to clinicians and chiropractic students, communications with physicians and presentations to insurance companies to raise awareness of the chiropractic guidelines (Table 3).

### *Next steps*

Monitoring the success of this program will be accomplished in multiple ways. For instance, evaluations will be conducted on the implementation process. Process indicators will include the frequency, type and quality of OL and BPC encounters with practitioners and leaders/decision makers, and whether OLs are appropriately supported/equipped/trained to complete their task. Social Network Analysis will be used to map and measure the relationships between actors, the patterns of these relationships, and the flow of resources (e.g., knowledge, support) between actors.[35]

OL and BPCs' roles and activities will be revisited, expanded, refined, and re-evaluated throughout the course of implementation of the program. For instance, the selection committee agreed that the list of OLs should be reviewed every 2 years. Based on achieved outcomes, we may elect to update the selection process and offer tailored training programs to new OL and BPC participants.

The CCGI OL/BPC program has a number of strengths, including a structured process to identify and train chiropractic OLs. Since the context and opportunities for structuring dissemination of CPGs can vary greatly between geographical settings (e.g.: population size, culture, environment – urban vs. rural, professional structures) each region remains independent in the conduct of its activities, the local context being at the core of change implementation, nonetheless promoting the same guideline recommendations.[36,37] This however represents a chal-

lenge in terms of systematic assessment of success. While every attempt was made to maximize the response rate in the survey administered to chiropractors, we are unable to determine the generalizability of our findings to the total population of Canadian chiropractors; this is partly because our sample was a convenience sample of members of the CCA limited to those with e-mail addresses who did not previously opt-out from receiving these. Importantly, it remains to be shown whether this long-term investment strategy will significantly increase uptake of EIP and CPGs in chiropractic and improve chiropractic care and patient health.

## Conclusion

The CCGI identified OLs and BPCs across Canada as a strategy to enhance the uptake of best practice and guideline recommendations among clinicians, decision-makers/professional leaders and patients. Respected and influential individuals have been tasked to leverage their spheres of influence to reach out to field clinicians and other stakeholders. This initiative stands to improve the use of research evidence in practice by chiropractors and key leaders in Canada and, ultimately, patient care.

## Acknowledgements

We wish to acknowledge stakeholders of the CCGI as well as the OLs and BPCs for their dedication and valuable time devoted to improve patient care in Canada. We also wish to give a special thanks to Alison Dantas, MA, CEO of the CCA, for her valuable contribution to the training workshop, Darquise Lafrenière, PhD, CCGI Knowledge Broker, for co-leading the OL and BPC program, and Heather Owens, MSc, research manager, for all her help in coordinating the activities of this program and for revising this manuscript.

## References

1. Graham G, Mancher M, Miller Wolman D, Greenfield S, SteinbergE . Editors. Clinical Practice Guidelines We Can Trust. Institute of Medicine, Shaping the Future for Health. Washington, DC: The National Academies Press. 2011.
2. Bishop PB, Quon JA, Fisher CG, Dvorak MFS. The Chiropractic Hospital-based Interventions Research Outcomes (CHIRO) Study: a randomized controlled trial on the effectiveness of clinical practice guidelines in the medical and chiropractic management of patients with acute mechanical low back pain. Spine J. 2010;10(12):1055-1064.
3. Grimshaw J, Eccles M, Thomas R, MacLennan G, Ramsay C, Fraser C, *et al*. Toward evidence-based quality improvement. Evidence (and its limitations) of the effectiveness of guideline dissemination and implementation strategies 1966-1998. J Gen Intern Med. 2006;21(Suppl 2):S14-S20.
4. Ivanova J, Birnbaum H, Schiller M, Kantor E, Johnstone B, Swindle R. Real-world practice patterns, health-care utilization, and costs in patients with low back pain: the long road to guideline-concordant care. Spine J. 2011;11:622-632.
5. Walker B, French S, Page M, O'Connor D, McKenzie J, Beringer K, *et al*. Management of people with acute low-back pain: a survey of Australian chiropractors. Chiropr Man Ther. 2011;19(1):29.
6. Bussieres AE, Laurencelle L, Peterson C. Diagnostic imaging guidelines implementation study for spinal disorders: A randomized trial with postal follow-ups. J Chiropr Educ. 2010;24(1):2-18.
7. Williams C, Maher C, Hancock M, McAuley J, McLachlan A, Britt H, *et al*. Low back pain and best practice care: a survey of general practice physicians. Arch Intern Med. 2010;170:271-277.
8. Straus S, Tetroe J, Graham I. Knowledge Translation In Health Care: Moving from Evidence to Practice, 2nd Ed. Chichester, West Sussex, UK: John Wiley & Sons; 2013. 2013.
9. CCA-CFCRB. The Canadian Chiropractic Association and the Canadian Federation of Chiropractic Regulatory Boards Clinical Practice Guidelines Development Initiative (The CCA/CFCRB-CPG) development, dissemination, implementation, evaluation, and revision (DevDIER) plan. J Can Chiropr Assoc. 2004;48(1):56-72.
10. Bussieres A, Stuber K. The Clinical Practice Guideline Initiative: a joint collaboration designed to improve the quality of care delivered by doctors of chiropractic. J Can Chiropr Assoc. 2013;57:279-284.
11. Bussières A. The Canadian Chiropractic Guideline Initiative: Progress to date. J Can Chiropr Assoc. 2014;58(3):215-219.
12. Michie S, Johnston M, Abraham C, Lawton R, Parker D, Walker A. Making psychological theory useful for implementing evidence based practice: a consensus approach. Qual Safety Health Care. 2005;14(1):26-33.
13. Francis J, O'Connor D, Curran J. Theories of behaviour change synthesised into a set of theoretical groupings: introducing a thematic series on the theoretical domains framework. Implement Sci. 2012;7(1):35.
14. Bussieres A, Patey A, Francis J, Sales A, Grimshaw J. Identifying factors likely to influence compliance with diagnostic imaging guideline recommendations for spine disorders among chiropractors in North America: a focus group study using the Theoretical Domains Framework. Implement Sci. 2012;7:82.

15. Bussières A, Al Zoubi F, Quon J, Ahmed S, Thomas A, Stuber K, *et al*. Fast tracking the design of theory-based KT interventions through a consensus process. Implementation Sci. 2015;10(1):18.
16. Cane J, O'Connor D, Michie S. Validation of the theoretical domains framework for use in behaviour change and implementation research. Implement Sci. 2012;7(1):37.
17. Abraham C, Michie S. A taxonomy of behavior change techniques used in interventions. Health Psychol. 2008;27(3):379-387.
18. Godin G, Belanger-Gravel A, Eccles M, Grimshaw J. Healthcare professionals' intentions and behaviours: A systematic review of studies based on social cognitive theories. Implement Sci. 2008;3:36.
19. Knox L, Taylor E, Geonnotti K, Machta R, Kim J, Nysenbaum J, *et al*. Developing and running a primary care practice facilitation program: a how-to-guide. (Prepared by Mathematica Policy Research under Contract No. HHSA290200900019I TO 5.). Rockville, MD; 2011. Report No.: AHRQ Publication No. 12-0011. 2011.
20. Stetler C, Legro M, Rycroft-Malone J, Bowman C, Curran G, Guihan M, *et al*. Role of "external facilitation" in implementation of research findings: a qualitative evaluation of facilitation experiences in the Veterans Health Administration. Implement Sci. 2006;1:23.
21. Andrews V, Tonkin E, Lancastle D, Kirk M. Identifying the characteristics of nurse opinion leaders to aid the integration of genetics in nursing practice. J Adv Nurs. 2014;70(11):2598-2611.
22. Damschroder L, Aron D, Keith R, Kirsh S, Alexander J, Lowery J. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. Implement Sci. 2009;4:50.
23. Carpenter C, Sherbino J. How does an "opinion leader" influence my practice? CJEM. 2010;12(5):431-434.
24. Baskerville NB, Liddy C, Hogg W. Systematic review and meta-analysis of practice facilitation within primary care settings. Ann Fam Med. 2012;10(1):63-74.
25. Valente TW, Pumpuang P. Identifying opinion leaders to promote behavior change. Health Educ Behav. 2007;34(6):881-896.
26. Flodgren G, Parmelli E, Doumit G, Gattellari M, O'Brien M, Grimshaw J, *et al*. Local opinion leaders: effects on professional practice and health care outcomes. Cochrane Database Syst Rev. 2011(8):CD000125. 2011.
27. Rycroft-Malone J, Seers K, Crichton N, Chandler J, Hawkes C, Allen C, *et al*. A pragmatic cluster randomised trial evaluating three implementation interventions. Implement Sci. 2012;7(1):80.
28. Curran G, Thrush C, Smith J, Owen R, Ritchie M, Chadwick D. Implementing research findings into practice using clinical opinion leaders: barriers and lessons learned. Jt Comm J Qual Patient Saf. 2005;31(12):700-701.
29. SDI®. The Strength Deployment Inventory (SDI) http://www.strengthdeployment.com/sdi/about-sdi-an-overview/ (Accessed 04 July 2015). 1973.
30. Doumit G, Gattellari M, Grimshaw J, O'Brien M. Local opinion leaders: effects on professional practice and health care outcomes. Cochrane Database Syst Rev. 2007(1):CD000125.
31. Hiss R, Macdonald R, Davis W. Identification of physician educational influentials in small community hospitals. Proceedings 17th Annual Conference on Research in Medical Education. 1978: 283-288.
32. Pronovost PJ, Berenholtz SM, Needham DM. Translating evidence into practice: a model for large scale knowledge translation. Vol. 3372008.
33. Stephanie Soo WB, Baker GR. Role of champions in the implementation of patient safety practice change. Healthcare Quarter. 2009;12(Sp):123-128.
34. Greenhalgh T, Robert G, Macfarlane F, Bate P, Kyriakidou O. Diffusion of innovations in service organizations: systematic review and recommendations. Milbank Q. 2004;82:581-629.
35. Robeson P. Networking in Public Health: Exploring the value of networks to the National Collaborating Centres for Public Health. Hamilton, ON. National Collaborating Center for Method and Tools. http://www.nccmt.ca/publications/6/view-eng.html. 2009.
36. Battilana J, Gilmartin M, Sengul M, Pache A, Alexander J. Leadership competencies for implementing planned organizational change. Leadership Quarterly. 2010;21:422-38.
37. Weingart SN. Implementing practice guidelines: easier said than done. Israel Journal of Health Policy Research. 2014;3:20-.